

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The specification is an incomplete translation of the JP-PCT document. The applicant is advised to read section 1893 National Stage (U.S. National Application Filed Under 35 U.S.C. 371) of the MPEP, as this states that the discloser of the national stage application document must be the same as that filed in the PCT application.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant uses the term "*non-boiled*". The examiner finds the term "*non-boiled*" to be indefinite claim language. The term can have a variety of different definitions, one being "uncured". The applicant does not provide an adequate definition of the term in the specifications, thus the examiner deems the term and claims to be indefinite.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen et al. (US 5,580,624, hereinafter "Andersen").

In regards to claim 1, Andersen discloses a container that is used in storing, dispensing, and packaging food and beverage products (col. 1 lines 16-18). The containers are manufactured from inorganic aggregates and organic binders (col. 1 lines 20-21). The container primarily consists of a binder and a reinforcing agent. The binder used is typically derived from cellulose products and effectively holds together a mixture of fibers (col. 6 lines 17-30). The fibers that are incorporated into the structural matrix are preferably naturally occurring fibers, such as fibers extracted from plant leaves and stems, usually comprising cellulose (col. 20 lines 46-49). It is also found that a variety of vegetable starch products also provide adequate binding (col. 6 lines 49-51). The natural starch products include amylopectin and amylase (col. 6 lines 51-52). Andersen discloses that the term "hydrated mixture" refers to a mixture that is in the green state (i.e. uncured) (col. 15 lines 60-62). The examiner views this that the various fibers have not been treated (i.e. boiled).

In regards to claim 2, Andersen discloses environmentally benign fiber (such as an organic plant fiber) is used to reinforce the food or beverage container (col. 9 lines

14-18). Andersen discloses that the containers are resistant to water by either altering the composition of the container and/or applying a coating to the container (col. 15 lines 43-53).

In regards to claim 3, Andersen discloses fibers that are incorporated into the structural matrix are preferably naturally occurring fibers, such as fibers extracted from plant leaves and stems, usually comprising cellulose (col. 20 lines 46-49). The amount of fibers added to the mixture does not exceed about 20%, which falls within applicants range (col. 21 lines 32-33).

Andersen is silent in regards to the specific plant fibers used as the binders in the mixture to form the food and beverage containers. Andersen is silent in regards to the ratio of Gramineae plant fibers to the Leguminosae plant fibers.

Andersen discloses that a preferred type of fiber used is abaca fibers. It is known to one of ordinary skill in the art of naturally occurring fibers that abaca fibers are known for their cellulose content. The fibers are extracted from the stalk of the plant.

Andersen discloses that the abaca fibers are used because of their low cost, high strength, and availability (col. 20 lines 61-62). Andersen also states that any equivalent fiber which imparts strength, as well as flexibility is within scope of the present invention (col. 20 lines 62-75). Bamboo fibers are also known for their high cellulose content and are extracted from the stalk of the plant. Bamboo fibers are widely used in papers and textiles, thus making them flexible but contribute to the overall strength of the product. It would be obvious to one of ordinary skill in the art at the time of the invention that one could interchange the use of the abaca fibers with the bamboo fibers to produce a food

and beverage container that is both eco-friendly and has the desired structural properties.

Andersen discloses that food and beverage containers contain a mixture of organic binders, including natural starch products such as amylopectin and amylase (col. 6 lines 51-52). The applicant claims that Gramineae plant fibers and Leguminosae plant fibers are used in the mixture to form the food container. The Gramineae and Leguminosae are two of the largest families for plants. The families each contain well over 10,000 species. The plants also produce natural starch products such as amylopectin and amylase in their fibers. Thus, it would be obvious to one of ordinary skill in the art at the time of the invention that Andersen's invention would contain a species of both the Gramineae and Leguminosae family. It would be obvious to one of ordinary skill in the art at the time of the invention that the ratio of Gramineae fibers to Leguminosae fibers would be of one that would provide excellent binding qualities to produce a container with the greatest amount of stability and durability while still being eco-friendly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELLEN S. WOOD whose telephone number is (571)270-3450. The examiner can normally be reached on Monday-Thursday 7:30am-5:00pm EST Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Primary Examiner, Art Unit 4174

Ellen S Wood
Examiner
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